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PHOTOGRAPHIC INTERPRETATION REPORT

LAUNCH COMPLEX C, SSATC
COMPARED TO
LAUNCH COMPLEX H, KY/VLAD MTC
USSR

[redacted]

MAY 1967
COPY 116
27 PAGES

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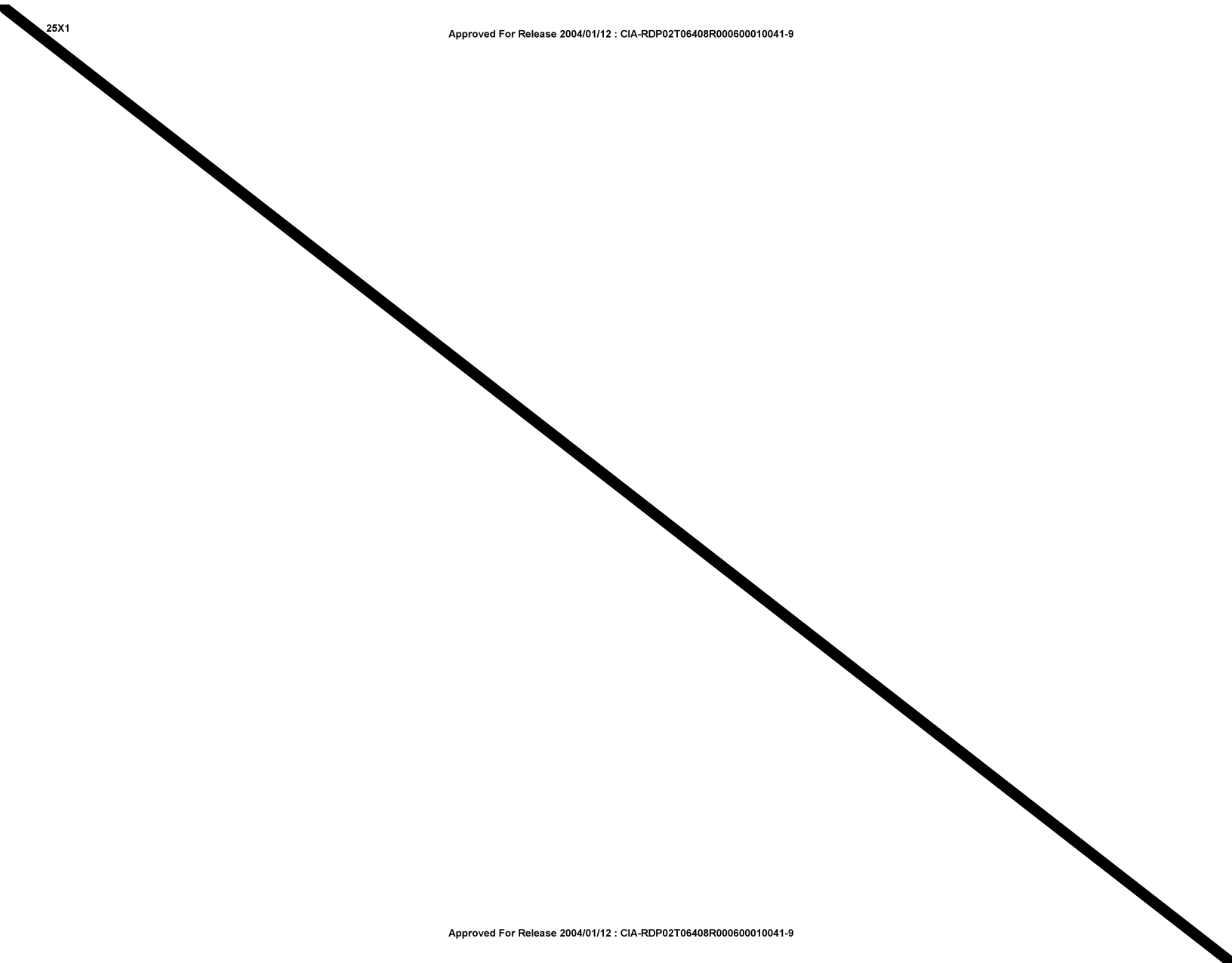

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NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

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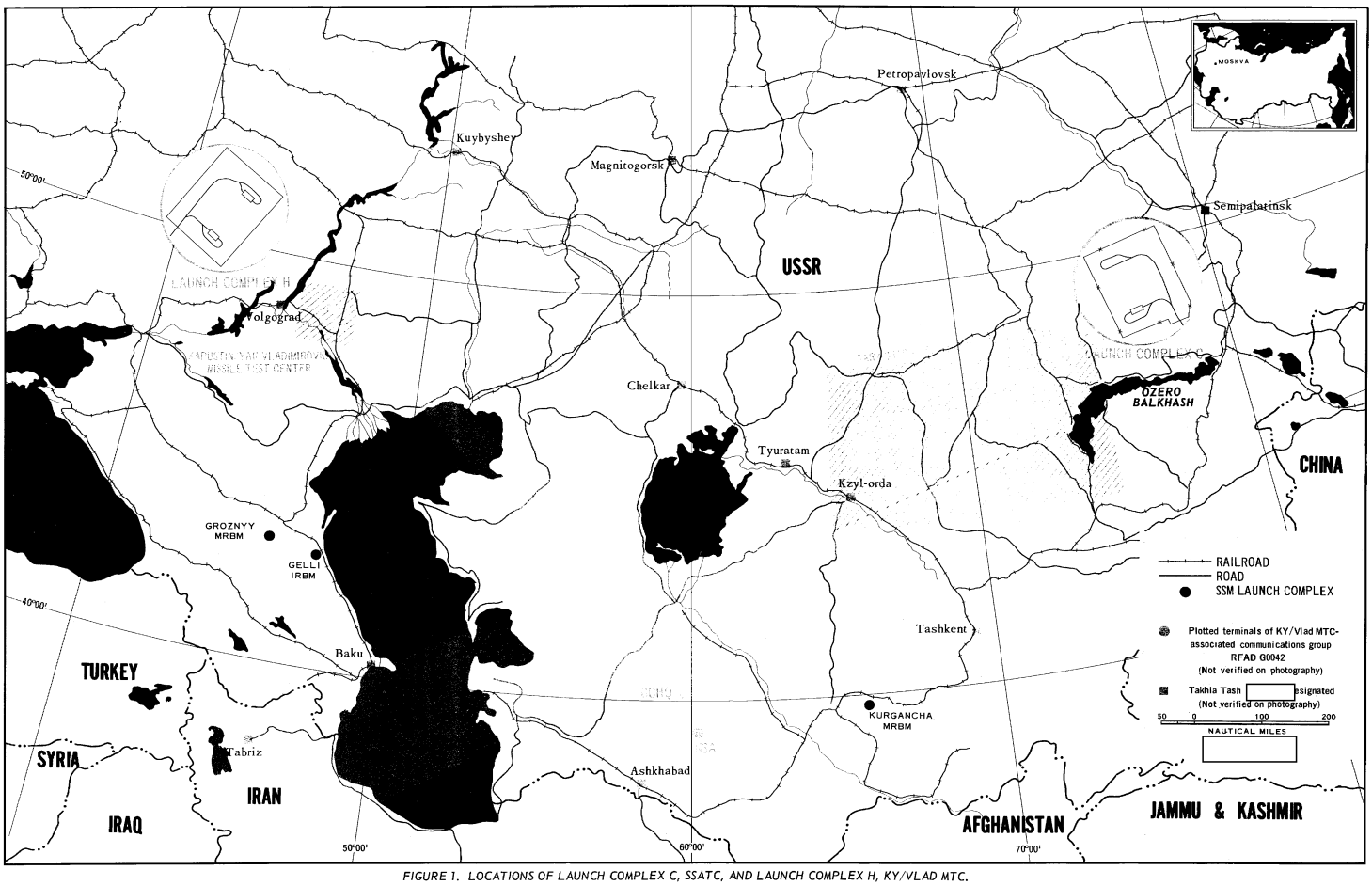

FIGURE 1. LOCATIONS OF LAUNCH COMPLEX C, SSATC, AND LAUNCH COMPLEX H, KY/VLAD MTC.

PREFACE

A recent relatively large-scale [redacted] photo mission permitted the positive identification of Launch Complex C at Sary-Shagan Antimissile Test Center (SSATC). The marked similarity of the launch facilities at this launch complex with those previously identified at Launch Complex H at Kapustin Yar/Vladimirovka Missile Test Center (KY/Vlad MTC) generated an NPIC requirement for this detailed analysis and comparison of the 2 facilities (Figure 1). This report also serves as a partial response to standing CIA requirements C-DI5-82,750 (revised); C-DI5-83,163 (revised) (NPIC Project 11023/66); and C-DI5-82,975 (revised) (NPIC Project 11211/66).

Mensuration presented in this report was accomplished by the NPIC Technical Intelligence Division with estimated accuracy as follows: horizontal distances to 50 feet, plus or minus [redacted] or 10 percent, whichever is greater; distances over 50 feet, plus or minus 5 feet or 2 percent, whichever is greater; height measurements to within plus or minus 5 feet. (Note: In instances in which 3 measurements are shown in tabular material the third measurement is height.)

The precision target plots included in this report are mathematically rectified projections of the areas. Plots are compiled utilizing precision mensuration instruments, and image interpretation is performed with the aid of stereoscopic viewing equipment. Identifiable image points are measured and their coordinate values mathematically transformed by computer. This transformation corrects for camera and attitude (pitch, roll, and yaw) induced distortions but does not correct for displacement due to ground relief and object height.

While these target plots represent the most accurate data compiled to date, the user is cautioned to exercise care in scaling distances or determining azimuths from these plots, for relief can introduce errors in distance and alignment.

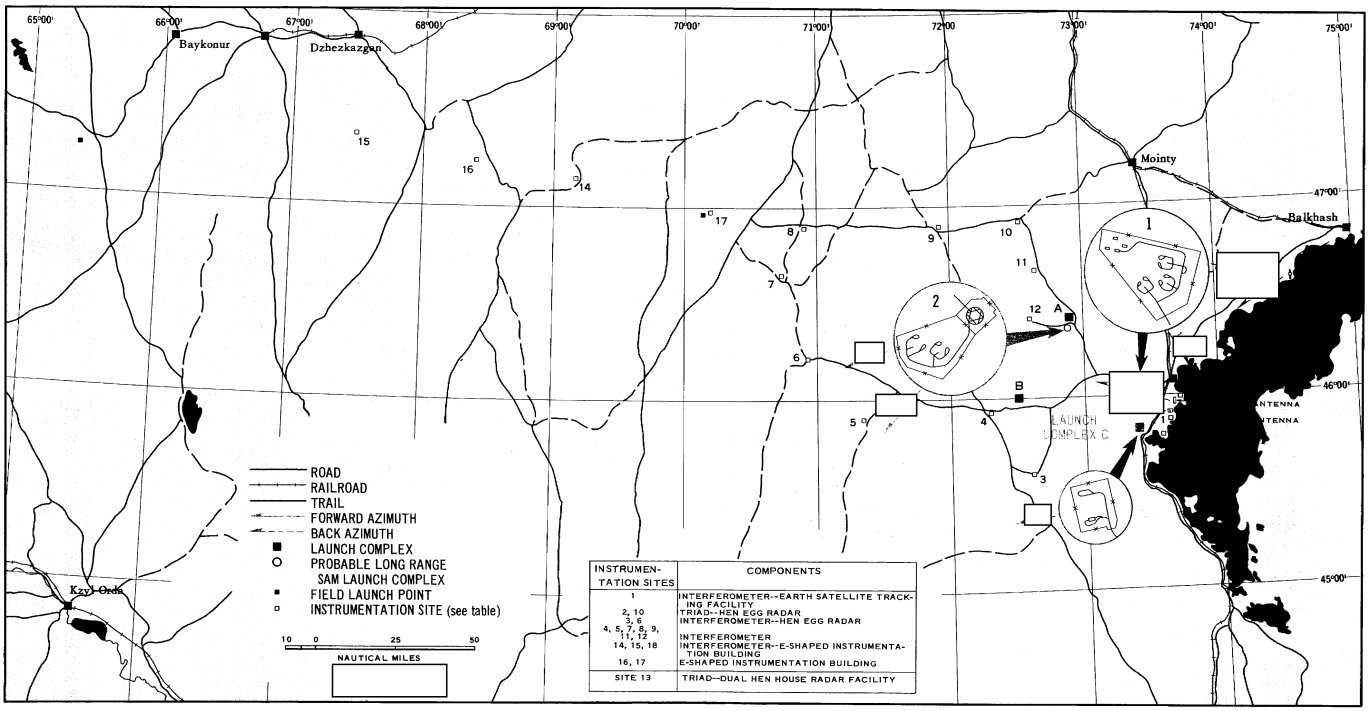

FIGURE 2. SARY-SHAGAN ANTIMISSILE TEST CENTER, ELECTRONICS AND LAUNCH FACILITIES.

INTRODUCTION

The appearance of similar launch sites at locations where dissimilar weapons systems are developed and tested complicates the task of identification. Launch Complex H at Kapustin Yar/Vladimirovka Missile Test Center, by reason of its location at the rangehead, normally would be associated with surface-to-surface missile test and development. At Sary-Shagan Antimissile Test Center (Figure 2), on the other hand, it would be unique if Launch Complex C served such a function. As the similarity of the 2 launch sites requires an examination of other facilities at each of the missile test centers, this report presents certain observations regarding chronological and mensural relationships which may provide clues to the mission of each of the launch complexes. Included are rectified line drawings of launch areas and support facilities, and similarly scaled drawings of selected Soviet missiles and launch positions. Tables 1 and 2 present distances and azimuths which may be helpful in continuing analysis of the system. Other distances and azimuths are shown on the graphics.

LAUNCH COMPLEX C SARY-SHAGAN ANTIMISSILE TEST CENTER

Launch Complex C consists of a 725- by 165-foot single-fenced launch area with 2 launch positions and a support area 6 nautical miles (nm) to the east, which contains 12 buildings and a number of concrete aprons (Figures 3 and 4). The support area occupies approximately 27 acres of single-fenced land area.

The launch area is located at 45-49N 073-25E, approximately 6.5 nm west of Instrumentation Site 2, and 36.4 nm southwest of the Dual HEN HOUSE radar facility at Site 13. It is served directly only by road; however, the Mointy-Chu rail line, which serves the SSATC main support base, passes approximately 0.5 nm south of the launch area.

The single-fenced launch area consists of 2 side-by-side, elongated, loop-like access roads, with the southern position apparently complete and with a 100- by 50-foot concrete apron positioned over the northern portion of the loop access road. Pad separation apparently will be approximately 425 feet.

A drive-in control bunker is positioned in a central position to the rear of the launch positions, and a ramp-served semiburied tank is located approximately 100 feet east of the control bunker. A security gatehouse building and another small building are located near the entrance to the secured area.

The first indication of construction on Launch Complex C was construction on a western road extension from the lakefront access road which serves Instrumentation Site 2. This construction was first seen on [redacted] and could be negated on [redacted] road construction had reached the site of what is now the launch area. By [redacted] the new road had been blacktopped from the eastern end as far as the rail line, located 4.5 nm to the west, and a distinctive northward-pointing hook had been added at the western road terminus. Surfacing of the road, which continued in late 1964 and early 1965, apparently was complete by [redacted] with earth scarring visible at the end of the hooked road. By [redacted] scars for power poles could be seen paralleling the new road on one side, with a trace for a probable waterline on the other side. Relatively large-scale photography of [redacted] revealed this probable waterline extends from a possible tank within the operations area at Instrumentation Site 2 (Figure 5) to a point just west of the Launch Complex C Support Facility, and then parallels the road to the launch area.

As late as [redacted] no evidence of construction at the road terminus could be seen; however, on [redacted] the southernmost launch position loop road was photographed under construction. A security fence enclosed the site, and a possibly complete security building could be seen near the site entrance.

By [redacted] the loop road for the southern launch position (Launch Position 1) was being hard-surfaced, the control bunker was under construction, and a circular excavation, approximately 40 feet in diameter, was visible approximately 200 feet east-northeast of the security building.

Sometime between [redacted] scarring had appeared at Launch Position 2, and by [redacted] a loop road had been constructed. At Launch Position 1 an unidentified object could be seen on a newly constructed apron which straddles the north side of the road loop. The construction status of the apron could not be determined.

By [redacted] the single-fenced launch area appeared essentially as seen on relatively large-scale coverage of [redacted] except that the possible tank had not been buried, and presence of cable lines could not be determined. On subsequent coverages a dark object could be seen in the same approximate location on the apron at Launch Position 1 as seen in [redacted] a possible erector/launcher, approximately [redacted], could be identified (Figure 4). [redacted] a ground scar extended from the area of the support buildings to a point close to the control bunker. Further information on facilities comprising the complex, as seen on the only large-scale coverage available to date, can be found in Figure 3. The northern launch position (Position 2) was not complete as of [redacted] On the basis of available photography it is estimated that construction of 1 launch position at this complex took between 3 and 8 months. This does not include the time spent on construction of the access road.

Launch Complex C Support Facility (45-50-09N 073-33-54E) is 6 nm east of the launch complex and 4.5 nm east of the closest rail line. First indication of the facility appeared on [redacted] when the site appeared active with equipment, and with 2 trails leading south to the probable calibration tower which serves Instrumentation Site 2. Building construction, noted as early as 20 [redacted] when 10 buildings were visible. On [redacted] construction was observed on a trench for the probable waterline. Some construction work took place between [redacted] at which time major components appeared essentially as seen on coverage of [redacted] (Figure 4). Although there is evidence of activity and several small buildings disappeared between [redacted] the single-fenced facility appeared to remain generally unchanged during that time.

*Unidentified equipment near the top of this tower may be microwave related.

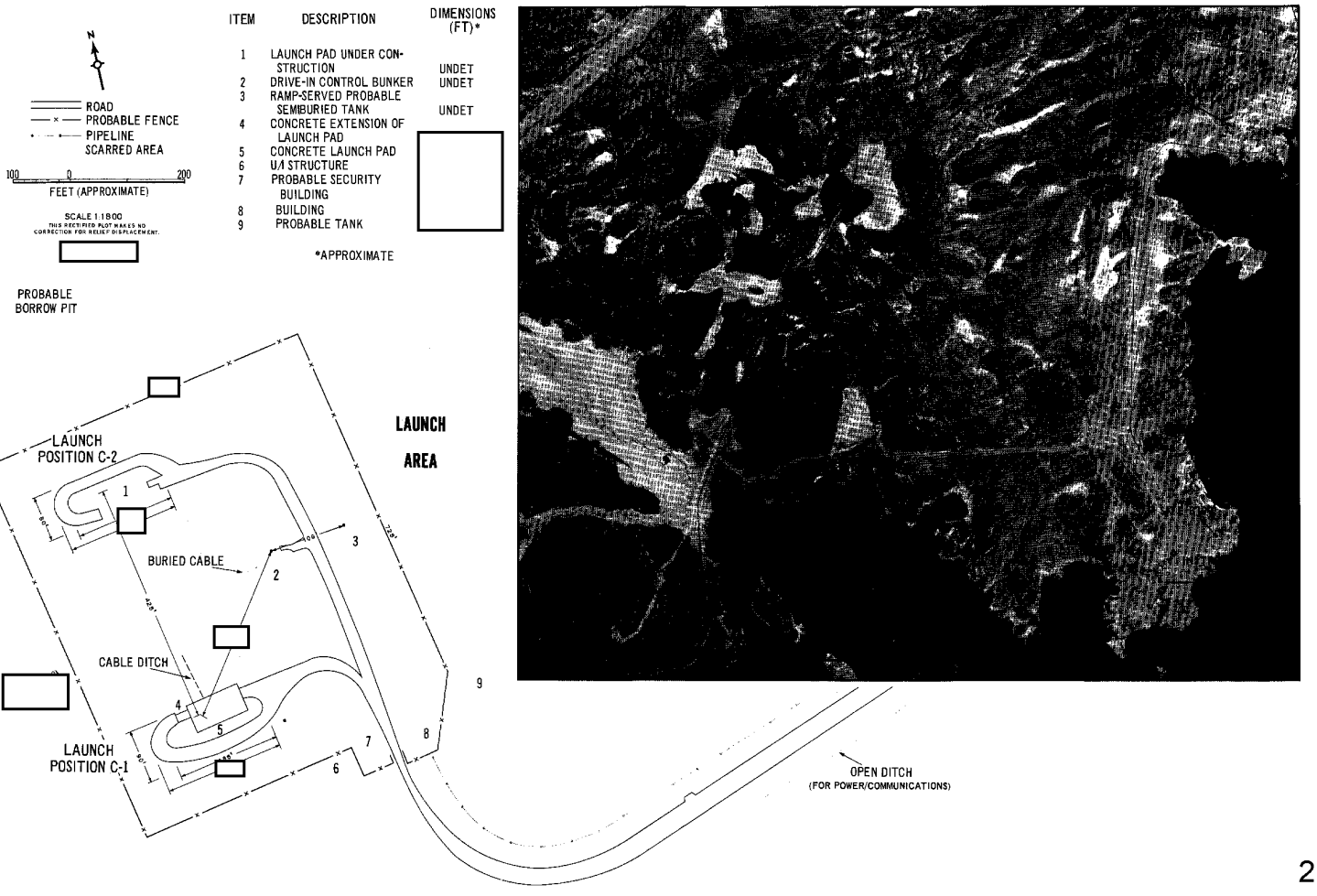

FIGURE 3. LAUNCH COMPLEX C, SSATC. Inset photo shows relative locations.

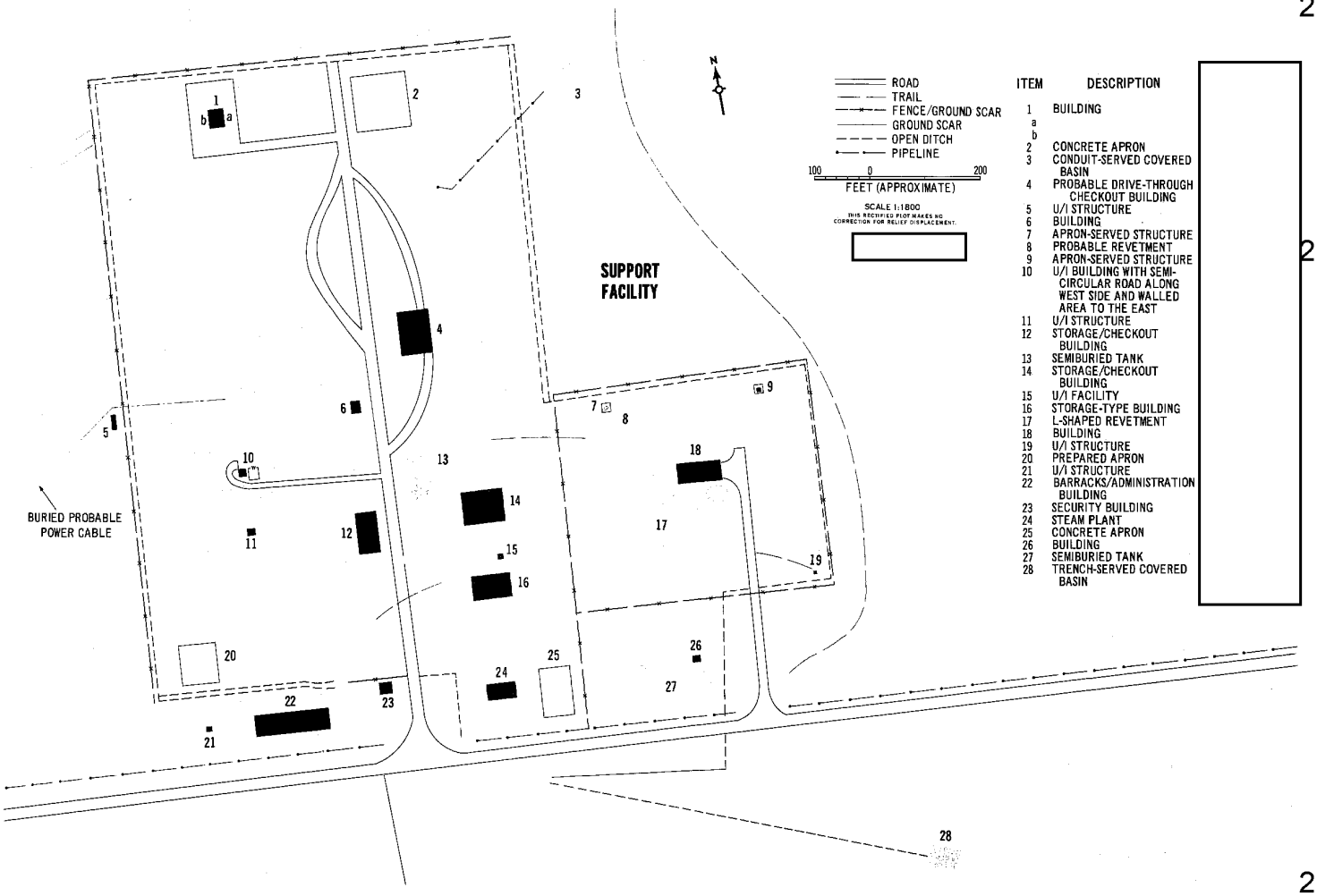

FIGURE 3. (Continued)

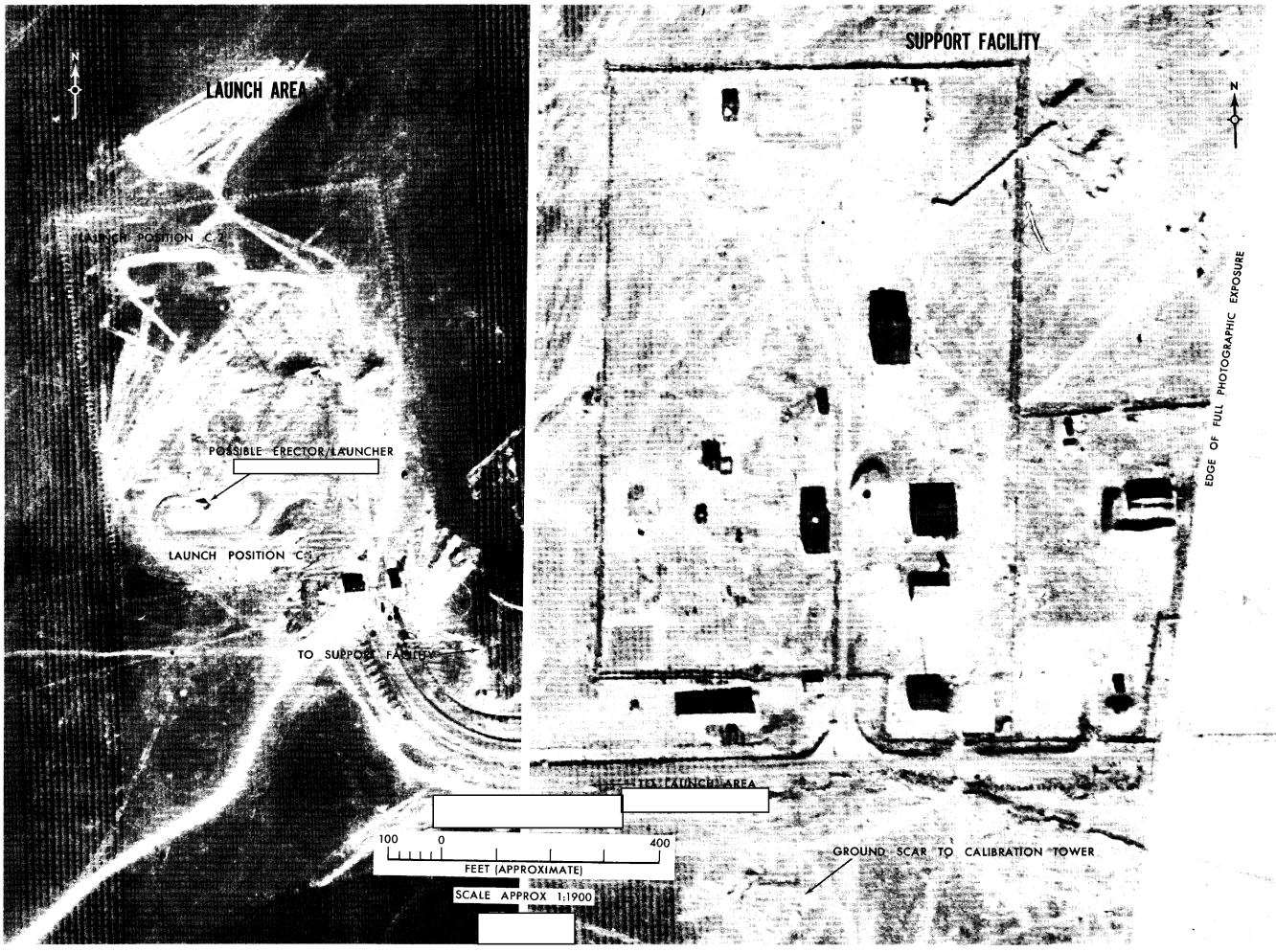

FIGURE 4. LAUNCH COMPLEX C, SARY-SHAGAN ANTIMISSILE TEST CENTER.

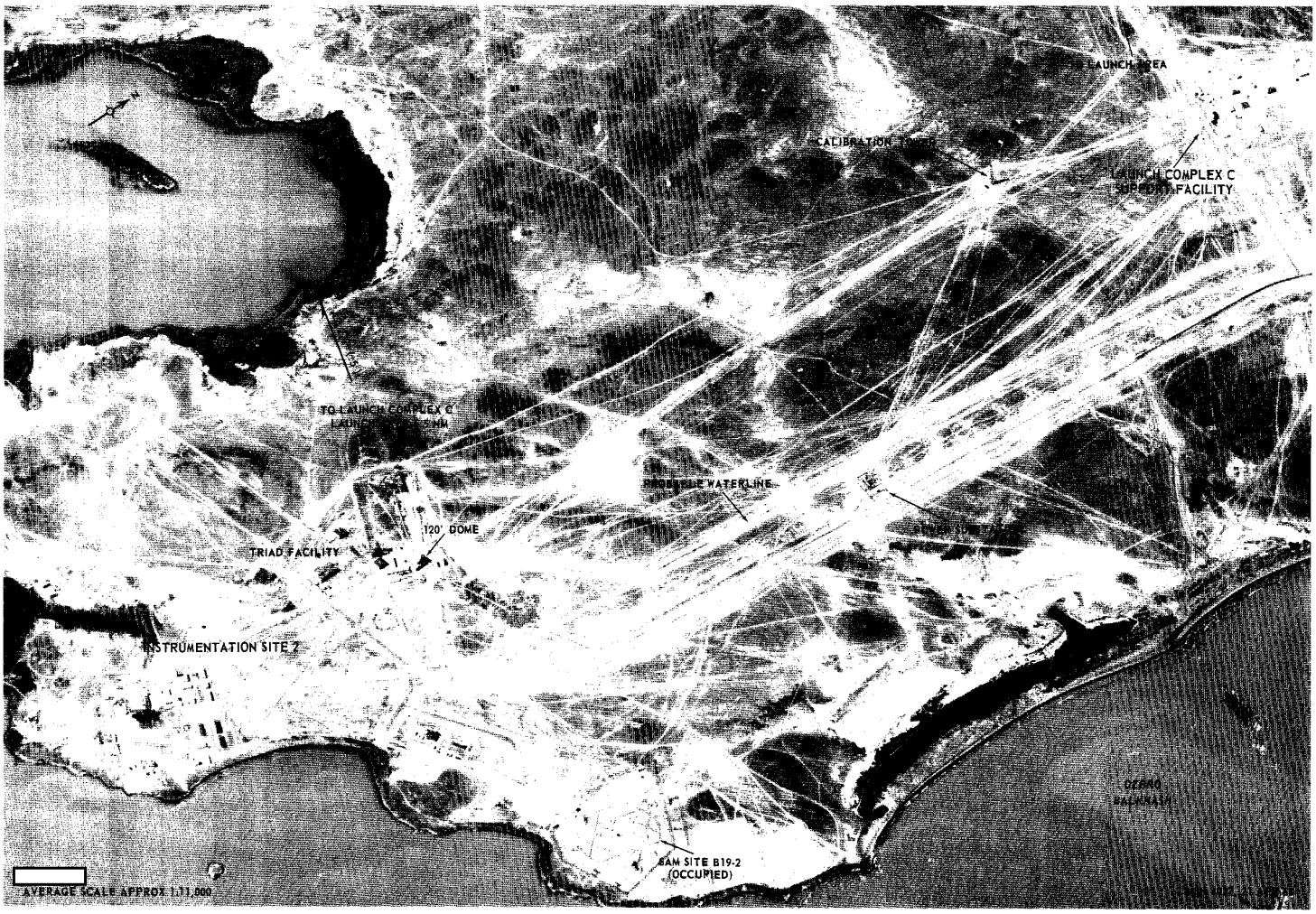

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FIGURE 5. RELATIONSHIP OF LAUNCH COMPLEX C SUPPORT FACILITY TO INSTRUMENTATION SITE 2.

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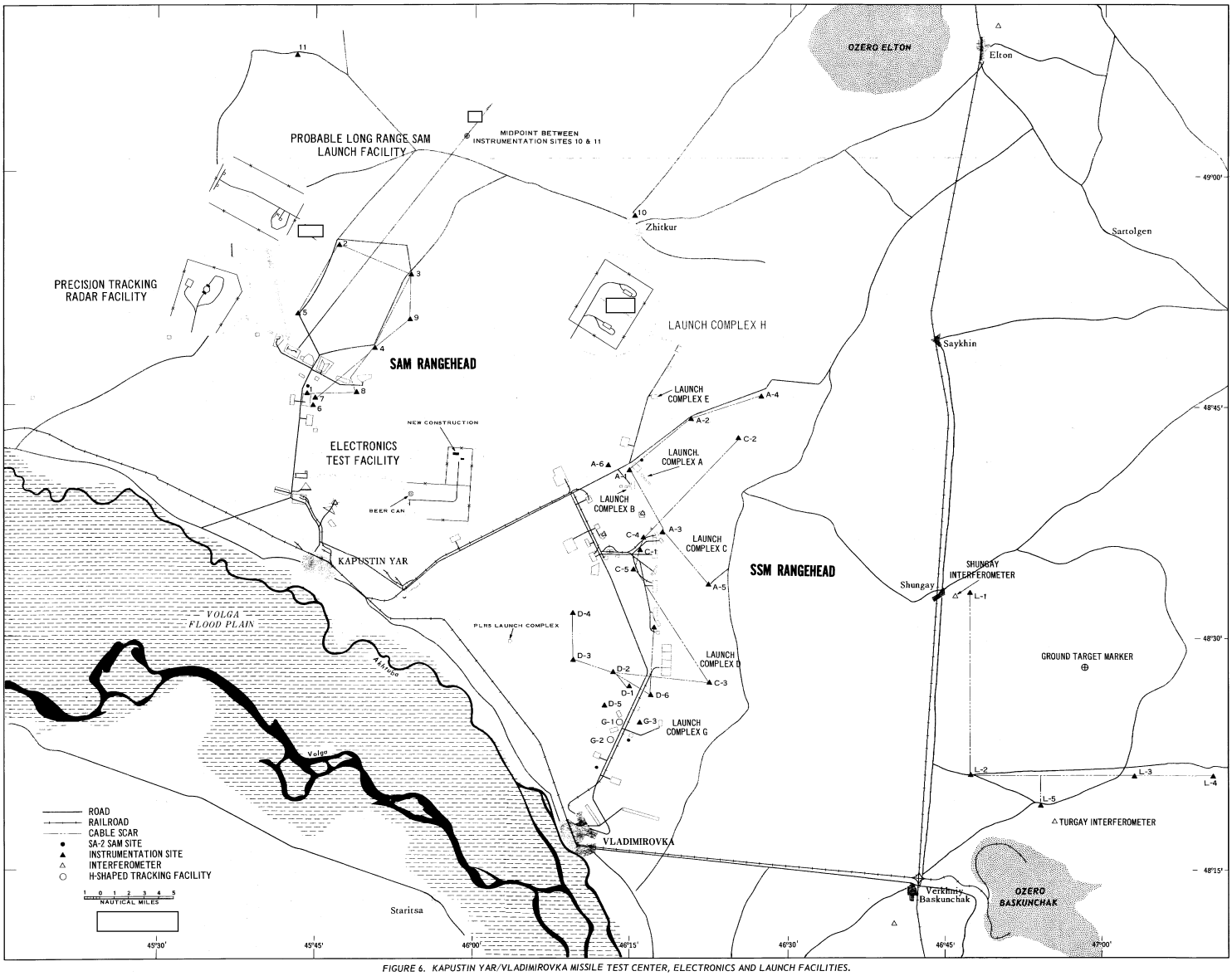


FIGURE 6. KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER, ELECTRONICS AND LAUNCH FACILITIES.

LAUNCH COMPLEX H KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER

Launch Complex H (Figures 6, 7, and 8) consists of a 740- by 595-foot single-fenced launch area with 2 launch positions and a support facility located nearly 1 nm to the south-southwest. The support area contains 4 buildings and occupies approximately 12.8 acres of single-fenced land area.

The launch area (Figure 8) is located at 48-48N 046-19E, approximately 2.3 nm north of Launch Complex E (Figure 7), and is presently the northernmost launch facility on the SSM side of the test center. Figure 6 shows its relationship to existing instrumentation facilities and other possibly related facilities.

Construction at Launch Complex H was first observed on [redacted] and can be negated on [redacted] When first seen in [redacted] the southern launch position and the control bunker were under construction. The northern position was first seen on [redacted] The hard-surfacing for the launch positions was first seen on [redacted]

The launch area presently consists of 2 side-by-side, rectangular aprons, each positioned on the north side of its loop access road. Two 45-foot-tall masts/poles are positioned 235 feet apart between the two 95- by 40-foot launch position aprons, which are in turn spaced approximately 410 feet apart. The launch positions, which were initially graded earth, now appear to be hard-surfaced. A possible erector/launcher, approximately [redacted] was photographed on the southern apron on [redacted] An earth-mounded control bunker is centered and to the rear of the launch positions, while an earth-mounded possible tank is located to the rear of the control bunker. A gatehouse security building and another building are located outside the security fence at the entrance to the area. The main access road and the loop road pattern do not appear to be hard-surfaced.

On the basis of available photography it is estimated that construction of a launch position at this complex took between 8 and 13 months.

The complex support area was first seen in [redacted] when it appeared almost complete. It can be negated in [redacted]

The support area, containing a large, prominent, loop-road pattern, presently contains 2 support buildings situated along the eastern side of the area, and a heating plant and gatehouse situated at the entrance to the area. The northwest side of the [redacted] foot drive-through support building has an attached possible passage approximately 10 feet wide and [redacted] long which appears to serve a [redacted] structure positioned at the northwest end of the possible passage. The access road to the building leaves the large loop road at a tangent, bypasses the possible passage, and joins the southwest corner of the drive-through building. Another access road is seen connecting the large loop road with an ill-defined apron on the southeast side of the drive-through building. A small earth-mounded bunker is located in the center of the area, adjacent to the loop-road pattern.

An open trench parallels the main access road from the launch area, past the support area, and extends beyond Launch Complex E. The trench probably terminates before reaching Launch Complex A, but may still be under construction. A probable buried cable connects the drive-through building in the support area with the control bunker in the launch area.

Activity detected at Launch Complex H has included:

[redacted] - Unidentified activity in the support area.

[redacted] - Unidentified activity at Launch Position H-1 and possibly H-2

[redacted] - An unidentified vehicle on the loop road near Launch Position H-1 and 2 possible cargo vehicles in the support area.

[redacted] - An unidentified [redacted] object parked near the southern fence line of the launch area.

COMPARISON

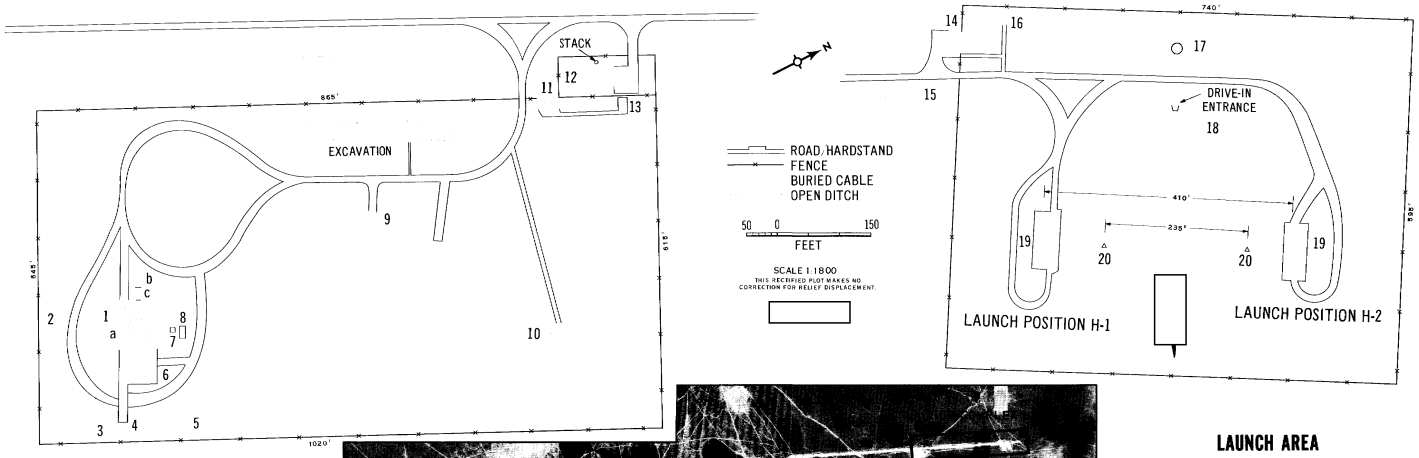
A study of the rectified line drawings (Figures 3 and 7) reveals a marked similarity between the launch areas, even to the amount of secured real estate. The possible erector/launchers identified at Launch Complex H in [redacted] and at Sary-Shagan Launch Complex C in [redacted] appear to be rail-type launchers and their lengths, [redacted] respectively, are virtually identical when measurement margins of error are considered. One apparent difference in the launch areas is the presence of 2 masts or poles positioned between the 2 launch positions at the Kapustin Yar Complex H launch area. There is no sign of poles or masts in the launch area at Sary-Shagan Launch Complex C.

Support areas, on the other hand, are not similar. The secured support area at Launch Complex C contains 12 buildings with a total roof area of 29,000 square feet, while the 4 buildings at the Kapustin Yar support facility have a roof area of approximately 9,000 square feet. The security fence at the Sary-Shagan support facility encloses 1,173,300 square feet, while its Kapustin Yar counterpart encloses only 555,900 square feet. Though there is a considerable difference in total roof area, there is no gross difference as regards the size of individual buildings. The unusual feature (annotations 1b and 1a, Figure 7) seen at the Kapustin Yar support facility, identified as a possible passage with small structure attached, is not present at any other support facility at KY/Vlad MTC or SSATC.

DISCUSSION

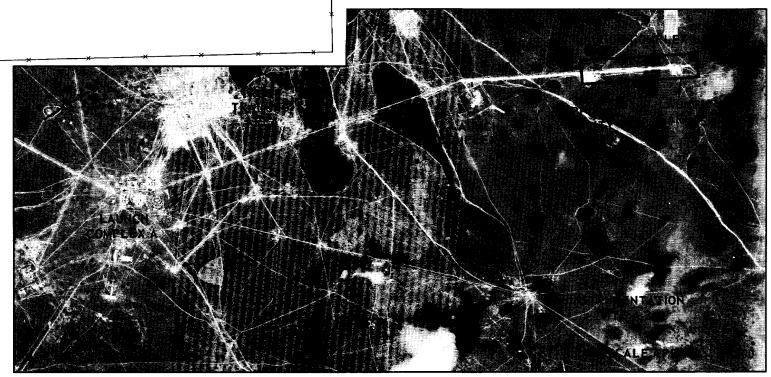
Construction of new launch facilities at a major Soviet missile test center normally suggests that a new missile system is under development. At this time, however, such a conclusion is not possible. Virtually simultaneous appearance at the 2 test centers, modest security, and relatively unsophisticated launch areas, with no evidence of collocated or directly associated electronics suggest that different conclusions must be considered.

In an attempt to establish the function of these launch complexes it is necessary to consider not only the appearance of the launch facilities and equipment, but the location of the complexes with reference to other facilities. Construction activity during the same time frame must also be considered, though much, if not all, of this activity may be coincidental. Figures 2 and 6 portray facilities at both test centers, with certain possibly related facilities highlighted. Figure 9 is a graphic presentation of the chronology of construction starts at 14 different facilities. Their



SUPPORT FACILITY

ITEM	DESCRIPTION	DIMENSIONS (FT)
1a	DRIVE-THROUGH CHECKOUT BUILDING	[redacted]
b	STRUCTURE	
c	POSSIBLE PASSAGE	
2	STRUCTURE	
3	STRUCTURE	
4	U/I FEATURE	10 DIAM
5	STRUCTURE	10 X 10
6	APRON	60 X 55 (APPROX)
7	POSSIBLE HARDSTAND	[redacted]
8	POSSIBLE HARDSTAND	
9	EARTH-MOUNDED STRUCTURE	
10	U/I SUPPORT BUILDING	
11	GATE SECURITY BUILDING	
12	HEATING PLANT	
13	U/I FEATURE	



LAUNCH AREA

ITEM	DESCRIPTION	DIMENSIONS (FT)
14	GATE SECURITY BUILDING	[redacted]
15	BUILDING	
16	U/I FEATURE	
17	POSSIBLE BURIED TANK	
18	CONTROL BUNKER	UNDET
19	LAUNCH POSITION APRON (2)	95 X 40
20	MAST/POLE (2)	45 HEIGHT

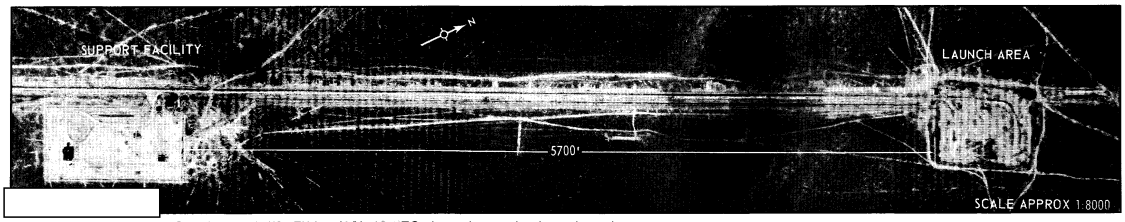


FIGURE 7. LAUNCH COMPLEX H, KY/VLAD MTC. Inset photographs show relative locations.

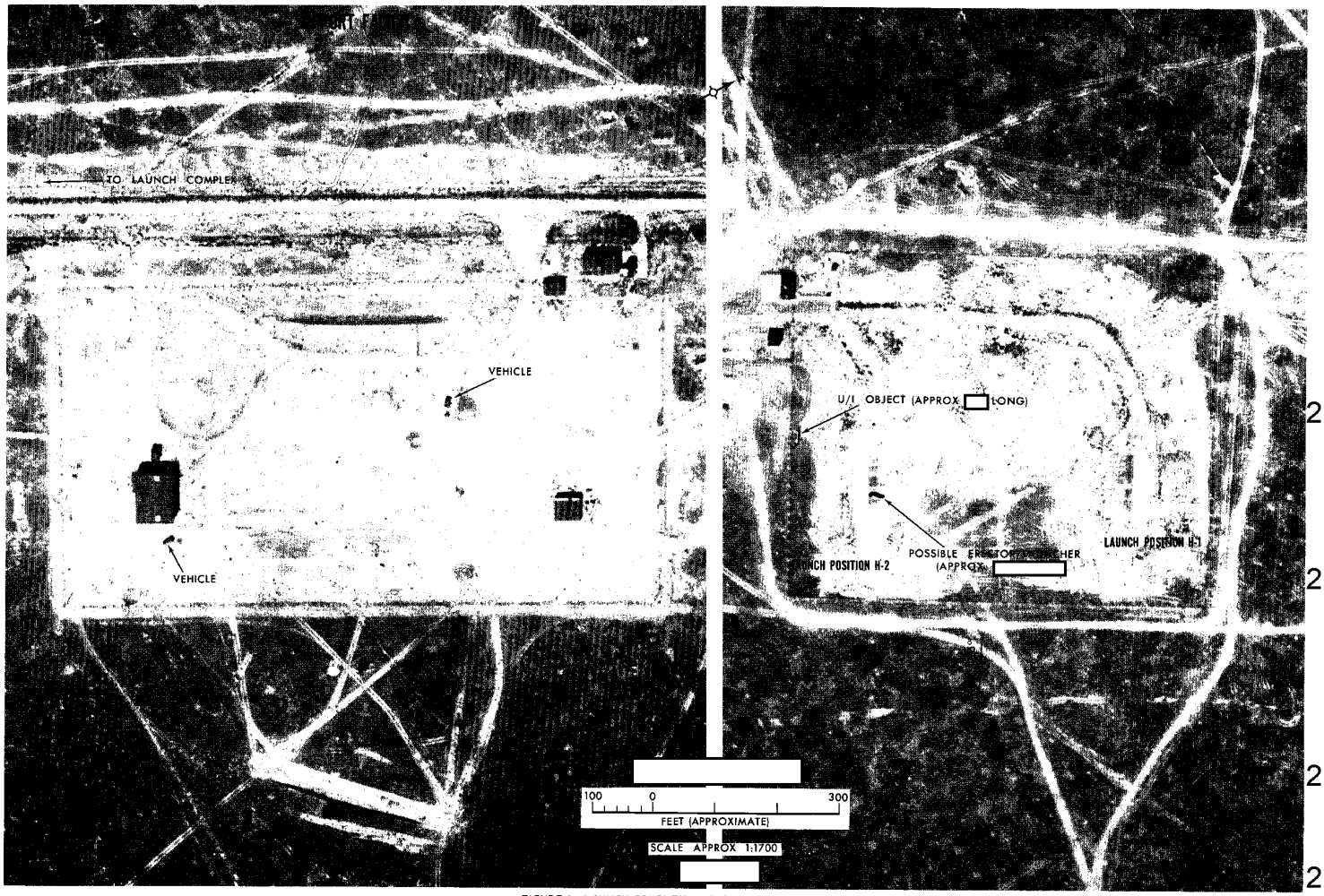


FIGURE 8. LAUNCH COMPLEX H, KY/VLAD MTC.

inclusion is intended only to show the timing relationship, and does not necessarily imply that a functional relationship exists. The index letters to the left of each listed facility are keyed to the small photographs. Though possibly unrelated, the following activity at KY/Vlad MTC is also noted because it took place on the SSM side of the center during the period that Launch Complex H was under construction:

1. Continuing construction at Launch Area 1C, where 2 new rail-served pads were added.
2. New ditching and construction of a fixed tower and structure on the north pad at Launch Area 2C.
3. Continuing modification of Launch Site 4C1.
4. Construction work on the control bunker at Launch Site 5C1.

The dissimilarity of support facilities at Launch Complex H and Launch Complex C, while launch facilities are so similar, is an anomaly which may have more than one explanation. One possibility is that the 2 launch complexes will serve a different function, despite the similarity of the launch areas. Another approach would have the launch complexes fulfilling a similar function, but with the Sary-Shagan complex programmed for much more extensive participation, thus requiring more support. The third, and favored, possibility is that the launch areas will serve similar functions, will require essentially similar support, but that other existing support facilities at KY/Vlad MTC will be utilized to augment those constructed for direct support at Launch Complex H. In this regard, the KY/Vlad MTC support facilities at Launch Complex A, located approximately 6.5 nm south-southwest of Launch Complex H (possibly constructed to provide support to Launch Complex E as well), will now serve to augment Launch Complex H support. At Sary-Shagan the nearest missile support facilities to the Launch Complex C launch area would have been near the main support base, approximately 17 nm away. It is possible that the support facilities at Sary-Shagan Launch Complex C, located approximately 6 nm from the launch area, are more extensive than those at Complex H due to the greater degree of isolation from existing support facilities.

In view of the possible relationship of existing support facilities to Launch Complex H support requirements, a review of the function of the other launch complexes on the SSM side of the center, starting with the complex nearest Launch Complex H and progressing south through Launch Complex G, follows:

Launch Complex E - Probably built for an SSM system, testing of which was never seen at this complex. The complex is now inactive. Troop training with the tactical SS-1 (SCUD) system has been observed for the past 2 years in the troop training area just west of Launch Complex E.

Launch Complex A - Systems R & D from the V-2 through SS-4, and troop training.

Launch Complex B - Systems R & D on naval missiles.

Launch Complex C - General purpose SSM launch activities, including space, troop training, new system development (both hard and soft).

Launch Complex D - R & D activity associated with aerodynamic vehicles.

Launch Complex G - Formerly SS-2 troop training. No activity during the past 2 years. The launch area probably is abandoned.

Figure 1 shows the orientation of the launch facilities at each complex with reference to each other, and the projected azimuths. The azimuths intersect at a point approximately 650 nm from each of the launch complexes (approximately 42-35N 058-35E), a point located approximately 80 nm south-southeast of the Aralskoye More. A generally rectangular area, which includes a circular area having a radius of 100 nm, has been searched on photography accomplished between [redacted] and no construction on instrumented impact areas or launch facilities could be identified. The corner coordinates of the area searched are: 40-55N 056-00E, 44-15N 056-00E, 44-15N 061-00E, 40-55N 061-00E. Though the general area of intersection is not an instrumented impact area, nor is it involved in test launching of target missiles, there has been some speculation, based on communications intelligence, that surface-to-surface missiles eventually might be launched from this general area into either or both the KY/Vlad MTC and the SSATC impact areas.

Bearing on the problem is the recently heard KY/Vlad MTC-associated communications group RFAD G0042, with DF bearings indicating that one terminal (possibly control) is located at Kapustin Yar and another terminal is located beyond the KY/Vlad range boundaries southeast of the Aralskoye More. The DF bearings for this terminal are: 39-10N 060-30E (NSA) and 41-16N 059-53E (GCHQ), as depicted on Figure 1. In addition, [redacted]-designated Takhia Tash, 42-54N 059-18E, was the location of several missile-suspect FPNs and the site of 1961-1962 geodetic activity. 1/

Launches of SSMs from the vicinity of the azimuth intersections over Sary-Shagan would permit considerable target missile elevations as they passed over the Sary-Shagan test center, thus permitting the test of an exoatmospheric intercept system. At the present time the test of such a system would be difficult if missiles were fired over Sary-Shagan from Kapustin Yar, Makat, or Chelkar, because of the proximity of Chinese Communist territory. The closest known SSM launch facility to this azimuth intersection (other than Chelkar) is the Kurgancha MRBM Launch Complex. Two additional SSM launch complexes, located approximately 1,200 nm from Sary-Shagan, are the Groznyy MRBM and the Gelli IRBM Launch Complexes. See Figure 1.

Also of interest is the orientation of the E-shaped buildings at Sary-Shagan Instrumentation Sites 14 through 18, as shown on Figure 1 of [redacted] 2/

Of possible interest is the similarity of orientation of the Launch Complex C launch pads and Sary-Shagan Probable Long Range SAM (PLRS) Launch Complex 2 (Figure 2 and [redacted] 3/ and the orientation of launch aprons at KY/Vlad MTC Complex H and the PLRS launch facility on the SAM side of the test center (Figure 6).

A study of Tables 1 and 2, however, shows no similarity in distance, with 41 nm between Launch Complex C launch area and SSATC PLRS Launch Complex 2, and 23.9 nm separating Launch Complex H launch area from the PLRS Launch Facility at KY/Vlad MTC. The similarity of azimuths and dissimilarity of distances may or may not be significant.

In developing working hypotheses regarding the function of these 2 launch complexes, progression from the following facts is indicated:

1. The launch facilities are similar.
2. The nearly simultaneous appearance of the facilities at 2 different missile test centers.
3. The presence of a possible launcher at each of the facilities which appears to be a rail-type launcher.
4. The lack of electronics, either collocated or directly associated with the launch facilities.

5. Minimal security arrangements (single security fence) at the facilities.

If the possible launcher is, in fact, a rail-type launcher, its presence at Sary-Shagan would suggest an air defense or ABM role; however, if the similarity of launch areas at Launch Complexes C and H means a similar mission for both, then such a function on the SSM side of the KY/Vlad MTC would be unique. On the other hand, if Launch Complex H is intended for launching surface-to-surface missiles, then a similar function at Sary-Shagan for such a permanent facility (Launch Complex C) would be unique.

Though communications intelligence has indicated that the same (and possibly a new) missile has been launched from both KY/Vlad MTC and Plesetsk, the nearly simultaneous appearance of a new weapon R & D program at 2 different test centers has never before been confirmed by photography, and in the case of defensive weapons systems such an occurrence would be a unique departure from past practice.

The minimal security arrangements at both facilities also tends to support the conclusion that the new launch facilities are possibly not new weapons systems under development. Though minimal security arrangements are not unique at KY/Vlad MTC SSM launch facilities, all Sary-Shagan launch complexes contain double security fencing at most, if not all, launch facilities.

The lack of collocated or directly associated electronics does not at this time favor antiaircraft or antiballistic-missile identification. At each of the launch areas, approximately 110 feet to the rear of the control bunker, a semiburied tank has been identified (with different degrees of confidence). At Sary-Shagan the probable semiburied tank appears to be ramp served. If this position were to be occupied by electronics equipment, identification of the launch facility might be different and more positive. However, past experience has shown that by the time launchers appear at an R & D SAM or ABM facility, the radars required for the system are in place. Nevertheless, the use of existing electronics at the ranges cannot be ruled out. In this regard, numerous candidates exist. At Kapustin Yar/Vlad MTC the timing of construction and the location of 2 facilities should be considered. The distance from Launch Complex H to the Precision Tracking Radar Facility (item A, Figure 9) is 25.0 nm, and to the new construction at the Electronics Test Facility (item H, Figure 9) 24.4 nm. This similarity does not in itself imply functional relationship, as it is more likely that the Precision Tracking Radar Facility was constructed to work with the Probable Long Range SAM Launch Facility (item B, Figure 9). The location of the Precision Tracking Radar Facility with reference to the rail-equipped PLRS launch position (nearly similar azimuths) is a consideration, as is its proximity (7,520 feet). As regards construction timing, appearance, and distance, there are no SSATC electronics counterparts to the KY/Vlad MTC relationships discussed above.

Therefore, it appears that both Launch Complexes H and C are possibly in support of some other system present at the respective test centers. If it is assumed that these similar launch facilities will serve the same function, then it is critical to examine each test center to see what similar facilities or activities are present at both.

Examination reveals that the PLRS launch facilities are part of the same system at both test centers, and that they appeared roughly within the same 12-month time span as did Launch Complexes C and H. This line of reasoning leads to the suspicion that the KY/Vlad MTC PLRS Launch Facility and the PLRS launch facilities at SSATC Complex 2, and possibly Complex 1, will be supported by Launch Complexes H and C in either continuing test activities or troop training. Therefore, it is suspected that the latter 2 launch facilities might be involved with launching high-performance target drones. Without more evidence, this conclusion can only be a suspicion, as all the possibilities may not be known or understood. As an example, an unanswered question would be, why were existing cruise missile launch facilities at KY/Vlad MTC not utilized if there was a need for a high-performance drone launch facility? Another unanswered question concerns site selection for Launch Complex C at Sary-Shagan. The location of an additional launch complex on the SSM side of the KY/Vlad MTC is a matter which could have been predicted; however, the location of Complex C at Sary-Shagan is difficult to explain. The convenience of existing support facilities at Sary-Shagan appears to have been a less important consideration than precise location and orientation.

Another working hypothesis has it that the complexes will be performing different functions or be responsible for different missions. In support of this view is the evidence that the support facilities for Complexes H and C are different and the complexes were constructed at different test centers, at locations which would normally be responsible for different missions. However, if one accepts the premise that similar launch sites will be launching similar missiles, this approach does not permit as comfortable an identification of function at either launch complex. For example, if it is in fact a rail-type launcher, launching the same type of missile at each location, the identification of an SSM tactical role at KY/Vlad MTC Launch Complex H would require the acceptance of a SAM or ABM role for an SSM tactical missile. Conversely, it would require the acceptance of an SSM role for a SAM or ABM missile.

In an effort to provide further photo-derived evidence for continuing analysis, a series of rectified line drawings of various launch facilities and missiles is presented at a common scale (Figure 10) to permit a rapid, visual, and possibly meaningful comparison between various launch facilities and missiles.

The configurations of the missile or missiles, and the launcher associated with the Probable Long Range SAM system, as portrayed in Figure 10 and [redacted] 4/ 25X1 are still tentative. The same applies to the launchers at Launch Facility A and Launch Positions B-1 and B-2, Launch Complex B, SSATC. Photoanalysis, including the use of models, shadows, density cuts, and image enhancement, continues. The configuration of the possible erector/launcher at Launch Complex C, SSATC, as depicted in Figure 10, also is tentative.

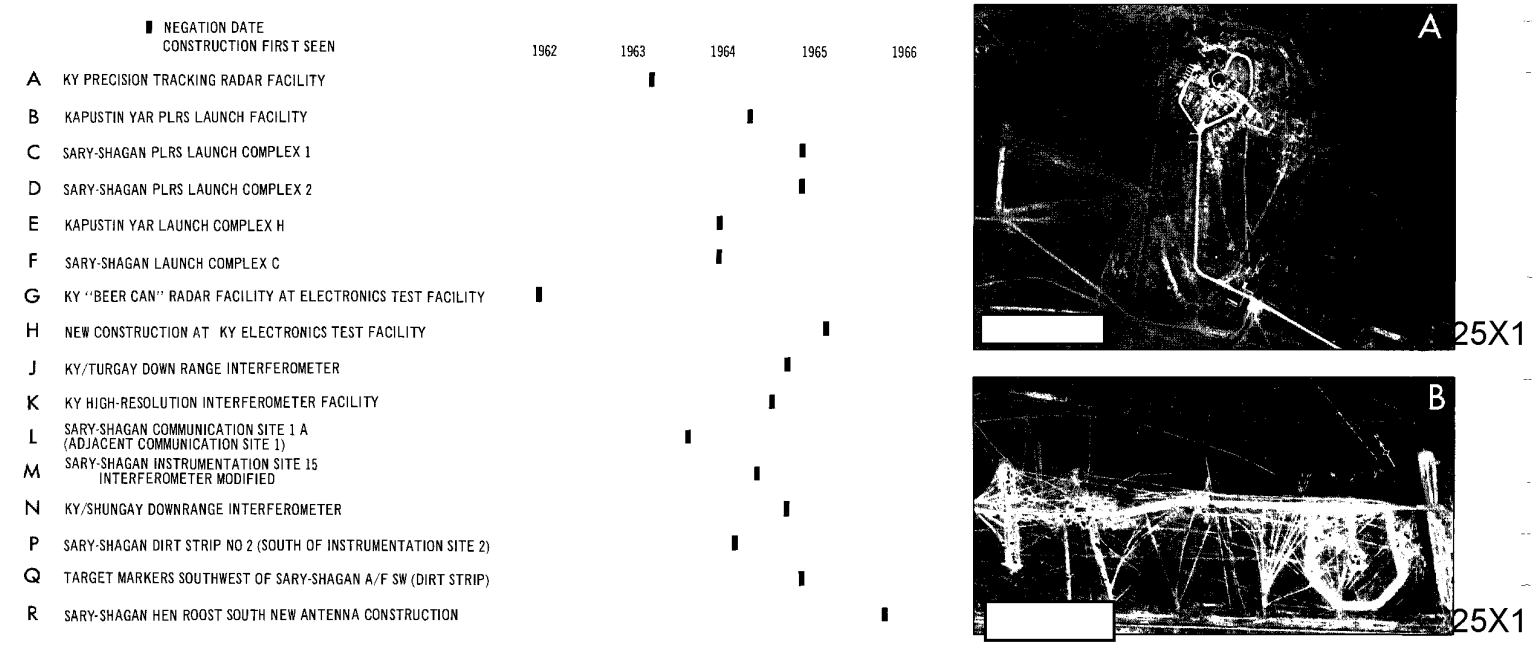


FIGURE 9. CONSTRUCTION TIMING OF SELECTED FACILITIES AT SSATC AND KY/VLAD MTC.

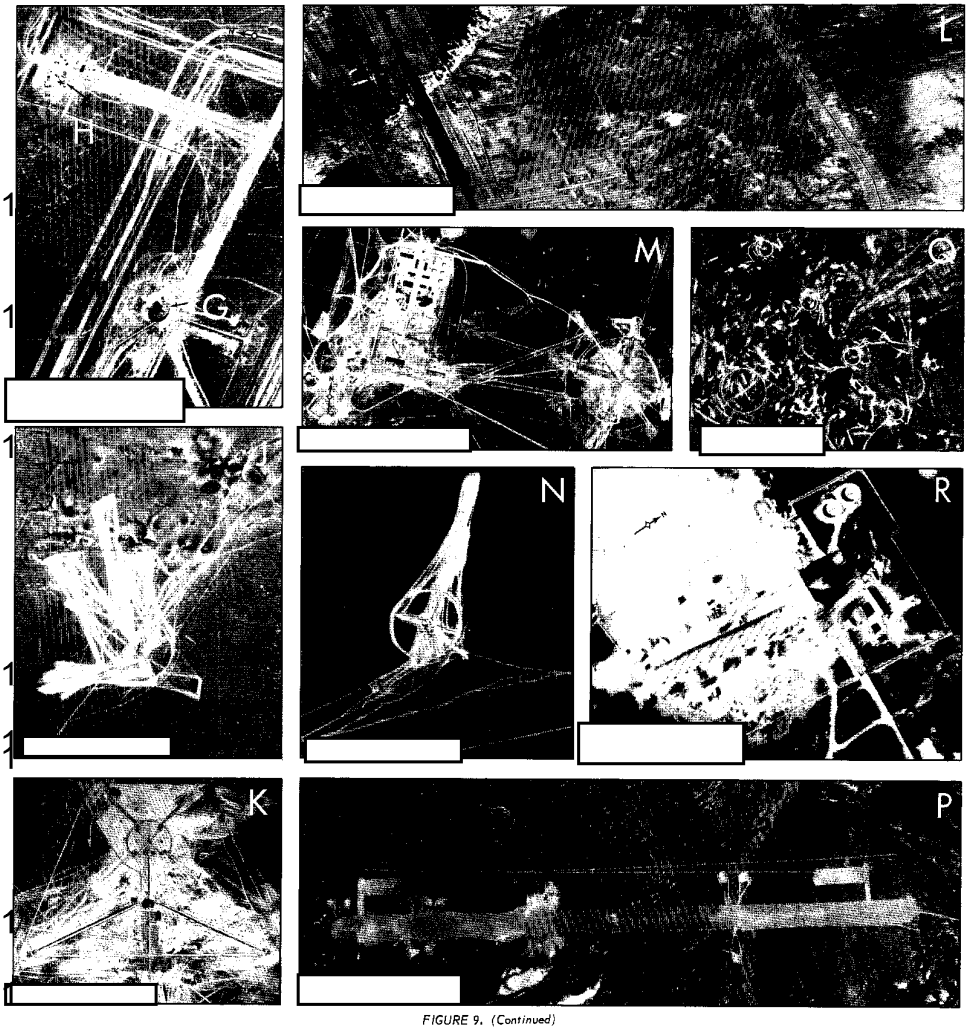


FIGURE 9. (Continued)

Table 1. Distances and Azimuths at SSATC

From	To	Distance (nm ±2%)	Azimuth (±5°)
Launch Complex C Launch Area	Launch Complex C Support Area	6.0	
Launch Complex C Launch Area	Instrumentation Site 2 (Dome)	6.5	
Launch Complex C Launch Area	Instrumentation Site 3	36.4	
Launch Complex C Launch Area	Site 13	60.5	
Instrumentation Site 3	Instrumentation Site 6	79.5	
Instrumentation Site 6	Instrumentation Site 10	79.2	
Instrumentation Site 3	Instrumentation Site 10	79.3	
Instrumentation Site 2	Instrumentation Site 3	42.3	
Instrumentation Site 2	Instrumentation Site 6	114.3	
Instrumentation Site 2	Instrumentation Site 10	81.4	
Instrumentation Site 2	Launch Complex B	48.0	
Launch Complex C Launch Area	PLRS Launch Complex 1	16.8	
Launch Complex C Launch Area	PLRS Launch Complex 2	41.0	

Table 2. Distances and Azimuths at KY/Vlad MTC

From	To	Distance (nm ±2%)	Azimuth (±5°)
New Construction, Electronics Test Facility	Launch Complex H Launch Area	24.4	
New Construction, Electronics Test Facility	PLRS Launch Facility	7.4	
Launch Complex H Launch Area	PLRS Launch Facility	23.9	
Launch Complex H Launch Area	Precision Tracking Radar Facility	25.0	
Precision Tracking Radar Facility	PLRS Launch Facility	1.1	
Ground Target Marker	Launch Complex H Launch Area	33.1	
Ground Target Marker	PLRS Launch Facility	54.4	
Instrumentation Site 11	Instrumentation Site 10	24.3	
PLRS Launch Facility	Midpoint between Instrumentation Sites 10 and 11	17.5	
Shungay Interferometer	Turgay Interferometer	16.3	
Baskunchak Interferometer	Rangehead Interferometer	32.0	
Rangehead Interferometer	Elton Interferometer	41.0	
Elton Interferometer	Baskunchak Interferometer	58.4	
New Construction, Electronics Test Facility	Precision Tracking Radar Facility	8.0	

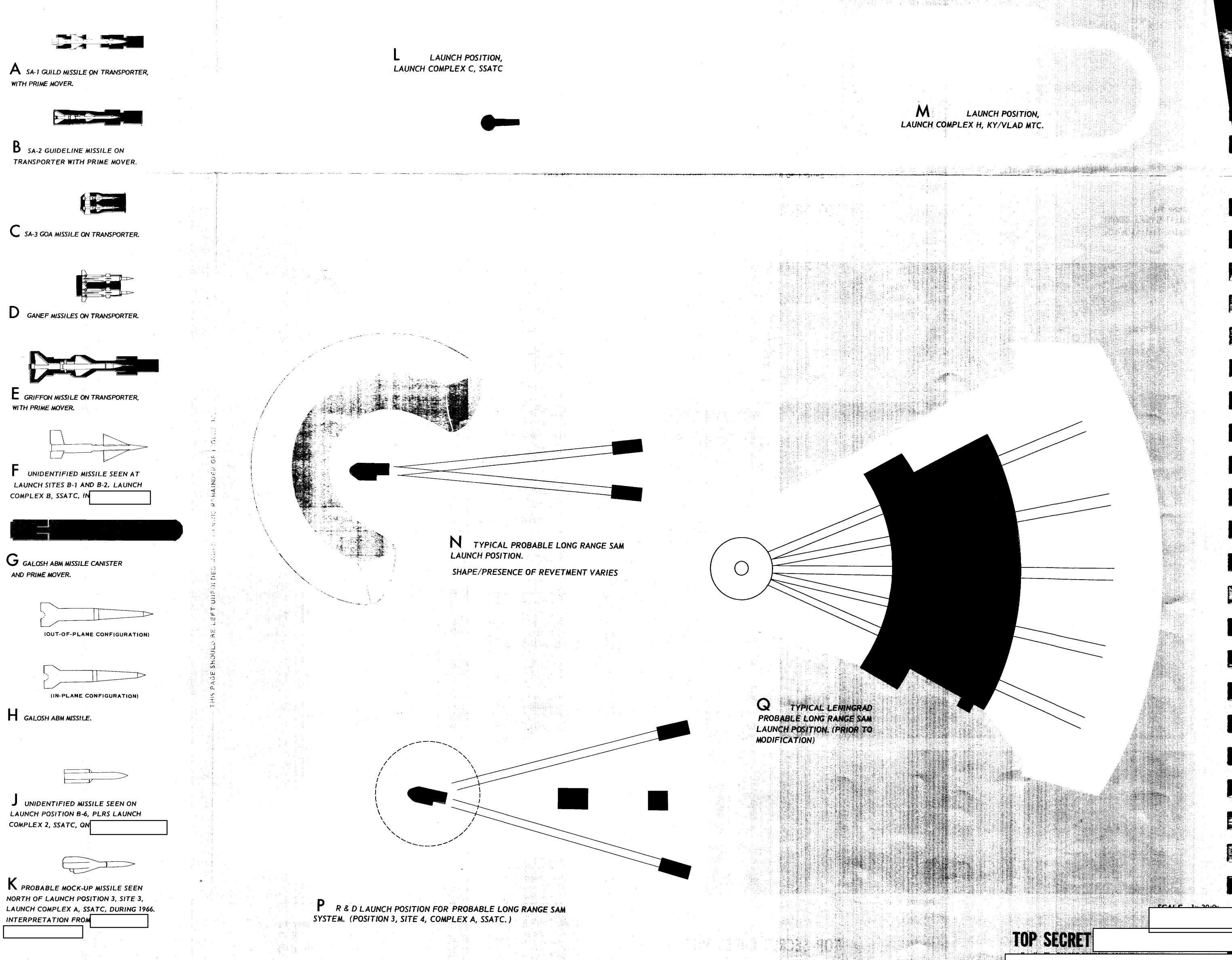
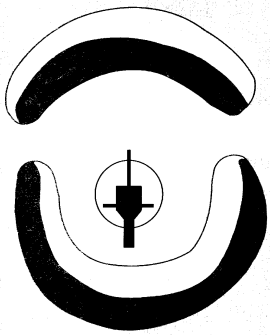
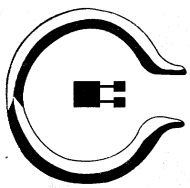


FIGURE 10



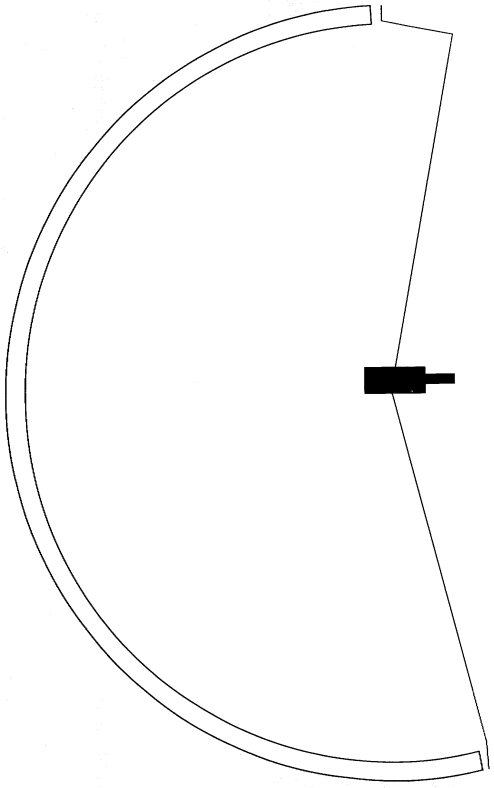
R SA-2 SAM LAUNCH POSITION WITH LAUNCHER.

T LAUNCH FACILITY A, LAUNCH COMPLEX B, SSATC.

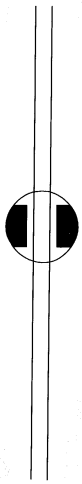


S SA-3 SAM LAUNCH POSITION WITH LAUNCHER.

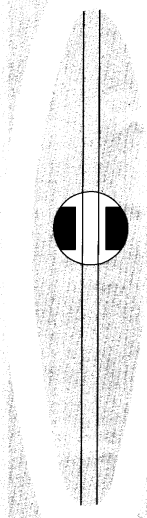
SCALE: 1"=30'0"



U LAUNCH POSITION B-1,
LAUNCH COMPLEX B, SSATC.



V LAUNCH POSITION C-1,
LAUNCH COMPLEX B, SSATC.



W LAUNCH POSITION B-4,
LAUNCH COMPLEX B, SSATC.

SCALE: 1"=30'00"

FIGURE 10 (Continued)

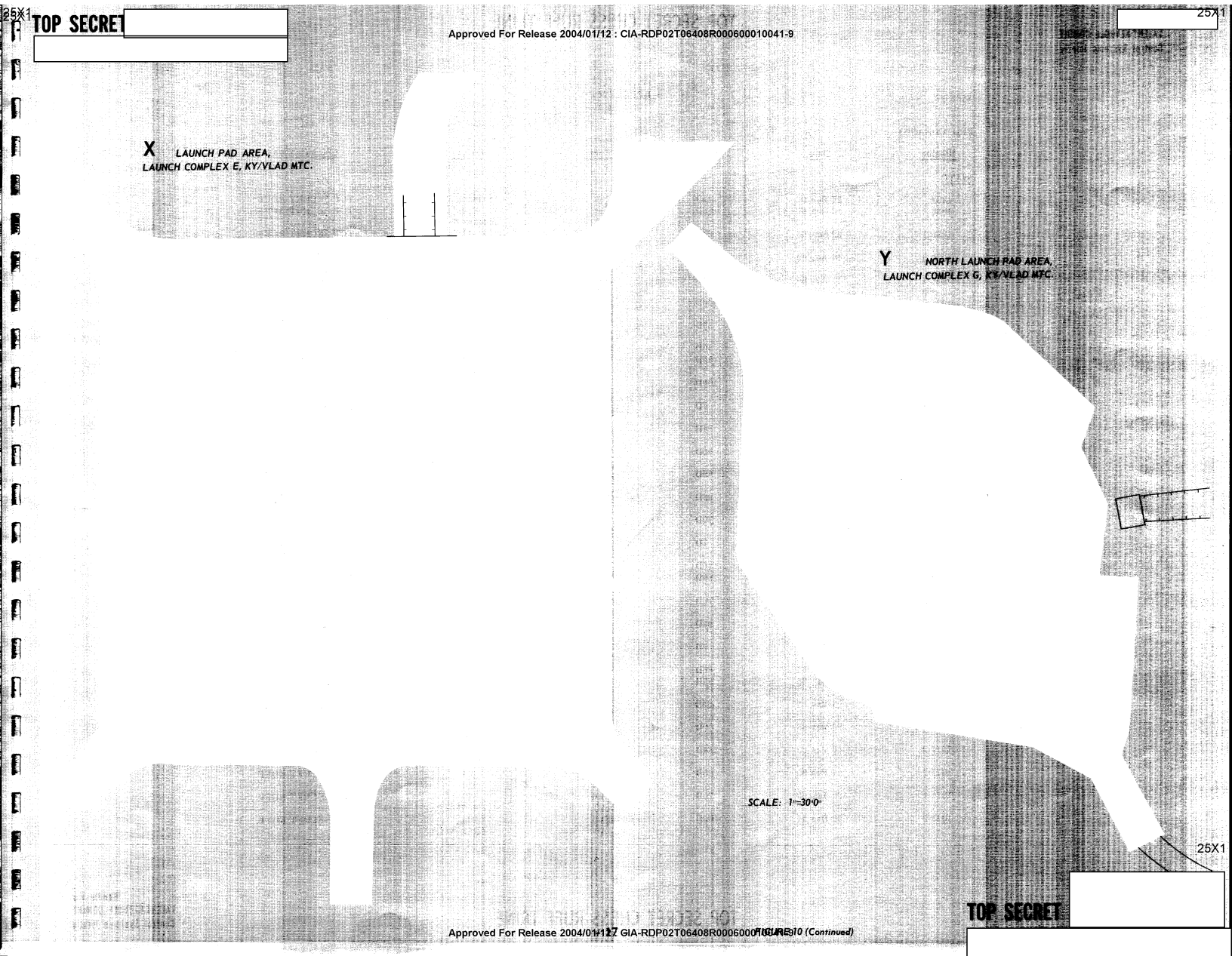


FIGURE 10 (Continued)

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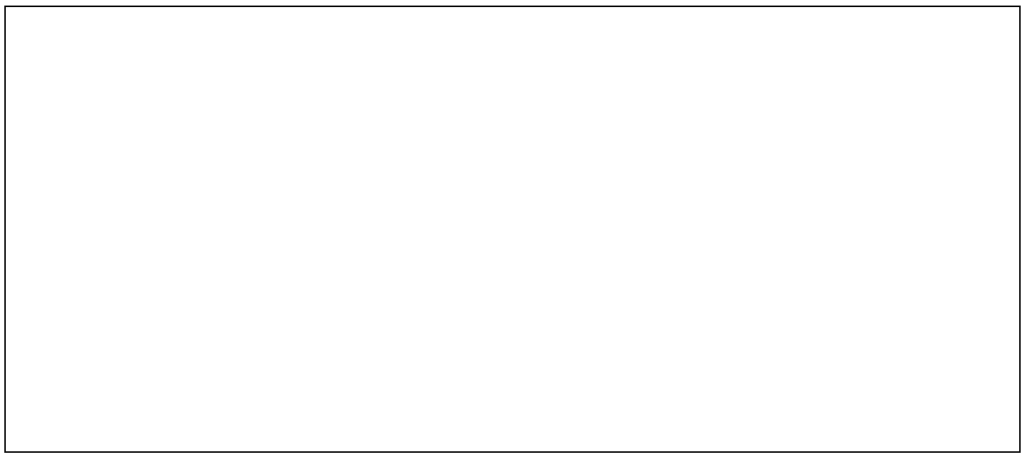

MAPS OR CHARTS

SAC and ACIC. US Air Target Charts, scale 1:200,000

AMS. Series DESPA-1, Sheet NL 43-7, 1st ed, Jun 62, scale 1:250,000 (TOP SECRET)

DOCUMENTS

1. NSA. 3/0/RUGM/R315-66, 3 Dec 66 (TOP SECRET)
2. CIA. PIR , *E-Shaped Buildings, Sary-Shagan Antimissile Test Center, USSR,* Mar 65 (TOP SECRET)
3. CIA. PIR-71010 *Possibly Deployed Probable Long Range SAM Launch Sites at Sary-Shagan Missile Test Center, USSR,* Oct 66 (TOP SECRET)
4. NPIC. *Missiles at Sary-Shagan Antimissile Test Center, USSR,* Oct 66 (TOP SECRET)

RELATED DOCUMENTS

CIA. PIR-61100 *Mensural Data on Unidentified Missile From Soviet Film "Rockets Guard the Peace",* Mar 66 (TOP SECRET)

CIA. PIR-61083 *Possible Launch Site West of Instrumentation Site 2, Sary-Shagan Antimissile Test Center, USSR,* Dec 65 (TOP SECRET)

NPIC. R-58/65, *GOA Missile, Moscow Parade, 7 November 1964,* Mar 65 (SECRET,)

CIA. PIR-61052 *Unidentified Missile from Soviet Film "Rockets Guard the Peace",* Oct 65 (TOP SECRET)

CIA. PIR *New Dirt Strip Under Construction and Sary-Shagan Airfield Southwest, Sary-Shagan, USSR,* May 65 (TOP SECRET)

NPIC. *Probable SAM Launch Area and Unidentified Secured Area, Kapustin Yar/Vladimirovka Missile Test Center, USSR,* May 65 (TOP SECRET)

REFERENCES (Continued)

CIA. /EB 132/65, *Electronic Site, Kapustin Yar/Vladimirovka Missile Test Center, USSR,* Apr 65 (TOP SECRET)

NPIC *Selected Radar Tracking Facilities, KY/VMTC and Gulf of Finland Areas, USSR,* Jun 65 (TOP SECRET)

NPIC. R-1270/64, *New Surface-to-Air Missile, Moscow Parade, 1 May 1964,* Jul 64 (SECRET)

NPIC. R-1115/64, *Revised Mensural Data on GRIFFON Surface-to-Air Missile,* Feb 64 (SECRET)

NPIC. R-5113/64, *Launch Complex C, Kapustin Yar/Vladimirovka Missile Test Center, USSR,* Dec 64 (TOP SECRET)

NPIC. R-802/64, *Electronic Research and Development Site, Kapustin Yar/Vladimirovka Missile Test Center, USSR,* Aug 64 (TOP SECRET)

US Army. TM 30-278, *Soviet Tactical Missiles,* Jan 63 (SECRET)

REQUIREMENTS

CIA. C-DI5-82,750 (revised)

CIA. C-DI5-83,163 (revised)

CIA. C-DI5-82,975 (revised)

NPIC PROJECTS

55087/67

11023/66 (partial answer)

11211/66 (partial answer)